

What is claimed is:

1. A method for making an article by cold compaction molding, wherein the method comprises compacting a resin composition comprising a HMW-PE or an UHMW-PE and an inorganic acid scavenger at a temperature below the melting temperature of the polyethylene to form the article.
2. The method according to claim 1, further comprising sintering the article at an elevated temperature after compaction.
3. The method according to claim 1, wherein the molecular weight of the polyethylene is above about 200,000.
4. The method according to claim 1, wherein the resin composition is subjected to pressures in the range of about 50 psi to about 6,000 psi during compaction.
5. The method according to claim 1, wherein the compaction temperature is about 0-120°C.
6. The method according to claim 1, wherein the acid scavenger selected from the group consisting of metal oxides, metal carbonates, silicates and mixtures thereof.
7. The method according to claim 1, wherein the concentration of the acid scavenger in the resin composition is in the range of about 100 - 2500 ppm.
8. The method according to claim 1, wherein the resin composition is in the form of a powder before compaction.
9. A molded article prepared in accordance with the method of any one of claims 1-8.
10. The molded article according to claim 9, wherein the article is characterized by an improved cold compaction strength.
11. The molded article according to claim 10, wherein the cold compaction strength of the article is not less than about 75% of the cold compaction strength of an article prepared from virgin polyethylene.
12. The molded article according to claim 10, wherein the cold compaction strength of the article is not less than about 90% of the cold compaction strength of an article prepared from virgin polyethylene.